

A NEW NAME FOR AN ANTILLEAN MARCGRAVIA

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Liogier, Henri Alain (Botanic Garden, University of Puerto Rico, Río Piedras, Puerto Rico, P. O. Box 36984, San Juan, Puerto Rico 00936-4984). A new name for an Antillean *Marcgravia*. *Moscosoa* 8: 45-52. 1994. The name *Marcgravia rectiflora* Tr. & Pl. has been incorrectly used for the common species in the Greater Antilles; the new name, *Marcgravia brittoniana* Alain is given to this specie.

El nombre de *Marcgravia rectiflora* Tr. & Pl. ha sido usado erróneamente para la especie común en la Antillas Mayores; se le da el nuevo nombre, *Marcgracia brittoniana* Alain a este especie.

The genus *Marcgravia* in the MARCGRAVIACEAE was created by Linnaeus in 1753 (Sp. Pl. 1: 503) in honor of the German Naturalist George Marcgraf who lived in the sixteenth century. This genus contains about 60 species in the West Indies and from Mexico south to Bolivia, the Guyanas and Brazil.

It has been a surprise to find out that the most common species in the West Indies had been misnamed; traditionally this species has been named *Marcgravia rectiflora* Triana & Planchon (1862). Hollis G. Bedell in Richard A. Howard's *Flora of the Lesser Antilles* (Vol. 5, page 303. 1989) cites this binomial as a synonym to *Marcgravia trinitatis* C. Presl (1845). It is obvious that the two plants are different and we have to give the species growing in the Greater Antilles a new name.

Marcgravia is a high-climber on trees in humid forests; the climbing stems present small, distichous leaves, very different from the leaves on the fertile branches; the inflorescence is usually an umbelliform cyme; there are some (2-)4 to 12 nectariferous bracts on central, sterile or abortive, flowering pedicels, urceolate, saccate, flask- or pitcher-shaped, often with an abortive flower at the apex; the fertile flowers are 4-5-merous, the bractlets appressed to the calyx; sepals 4-5, imbricated, petals 4-5, connate into a calyptra, conical or almost pyramidal, soon deciduous; stamens numerous (10 to 65) in one or several whorls, the filaments free or adnate to the corolla base; the ovary is 4- to 12-locular, with a slender style; the fruit is a globose capsule, more or less indehiscent, with pulpy mesocarp and numerous hemispherical or reniform, reticulate seeds.

There are four species of *Marcgravia* in Cuba: the present species, now named *M. brittoniana* Alain, common to Cuba, Hispaniola and Puerto Rico, *M. evenia* Krug & Urban, endemic to Cuba, *M. calcicola* Britton, also endemic and *M. oligandra* Wright, also found in Hispaniola. We find four species in Hispaniola: *M. brittoniana* Alain, *M. oligandra* Wright and two endemic species, *M. domingensis* Urb. and *M.*

rubra Alain, Jamaica has but two species, both endemic: *M. brownei* (Tr. & Planch.) Krug & Urban and *M. brachysepala* Urban. In Puerto Rico, besides *M. brittoniana*, we find another endemic species: *M. sintenisii* Urban. Oddly enough, there is a specimen of *M. brittoniana* collected on Tortola in the British Virgin Islands. Finally, there are three species of *Marcgravia* in the Lesser Antilles; *M. lineolata* Krug & Urban, *M. trinitatis* C. Presl, and *M. umbellata* L.; these three species are restricted to the Lesser Antilles. Summarizing, the genus *Marcgravia* has twelve species in the West Indies, and the present species has the widest distribution in the area.

I shall give the description of this species from the type specimen; then a complete description, using the herbarium material at hand.

***Marcgravia brittoniana* Alain, sp. nov. (Fig. 1).**

Scandens; rami floriferi teretes striati laxe lenticellosi glabri, lenticelli elliptici usque 1 mm longi, longitudinaliter 2-partiti; internodia ca. 2 cm longa; folia petiolo 2-3 mm longo supra applanato vix sulcato, lamina coriacea anguste elliptico-lanceolata, 6-11.5 cm longa 2-3.5 cm lata, apice longe acuminata basi cuneata vel subrotundata, supra minute et laxe scleroidea, sclerida albescentes, subtus laxe albescente-scleroidea et glandulis minutis pellucidis plus minusve impressis munita, glabra, nervo medio supra vix sulcato ad basin applanato, subtus prominente, nervis lateralibus obsoletis vel utroque latere 6-7, ad marginem retrorso-curvatis, margine integra vel leviter undulata, glandulis atris 2-5 mm inter sese distantes ornata, subtus poris nullis vel paucis praesertim ad basin, e nervo medio 4-5 mm distantibus. Racemi penduli breves cymoso-umbelliformes, rhachis 0.5-1 cm longus, flores 6-8, nectaria 2-3, 1 cm longe pedicellata, ipsa 2-3 cm longa clavato-tubulosa flore sterile apice gerentes, ore paullo ampliato lobulo triangulari acuto deflexo notata; pedicelli floriferi 4.5-5 cm longi in sicco striati, lenticellis ellipticis 1 mm longis ornati, ad apicem incrassati, in florum axem via directa abeuntes; bracteolae calyce adpressae, orbiculares 3 mm longae et latae glabrae; sepala late semiorbicularia exteriora 4.5 mm longa 7 mm lata glabra minute glandulosa, interiora paullo majora; petalorum calyptra conico-cylindrica, obtusa 1.3-1.5 cm longa, 0.7-0.8 cm lata, minute glandulosa; stamina 1-seriata 25-30, antheris linearibus ca. 3 mm longis, filamentis applanatis; ovarium globosum in stylo breve applanato contractum 9-10-lobulato, 9-10-loculare; fructus (in typo juvenilis) globosus 1.3 cm longus 1 cm latus, stylo coronato brunneus.

Holotypus: PUERTO RICO, Sierra de Yabucoa, 250-500 m alt., on rocks at summit, *N. L. Britton, E. G. Britton & F. S. Earle* 6268, Feb. 25, 1992 (NY).

Among the numerous specimens in the Herbaria, it has been a difficult decision to select the type specimen. I have chosen a good representative specimen collected by Nathaniel Lord Britton who worked on the Flora of the Antilles, mainly Cuba and

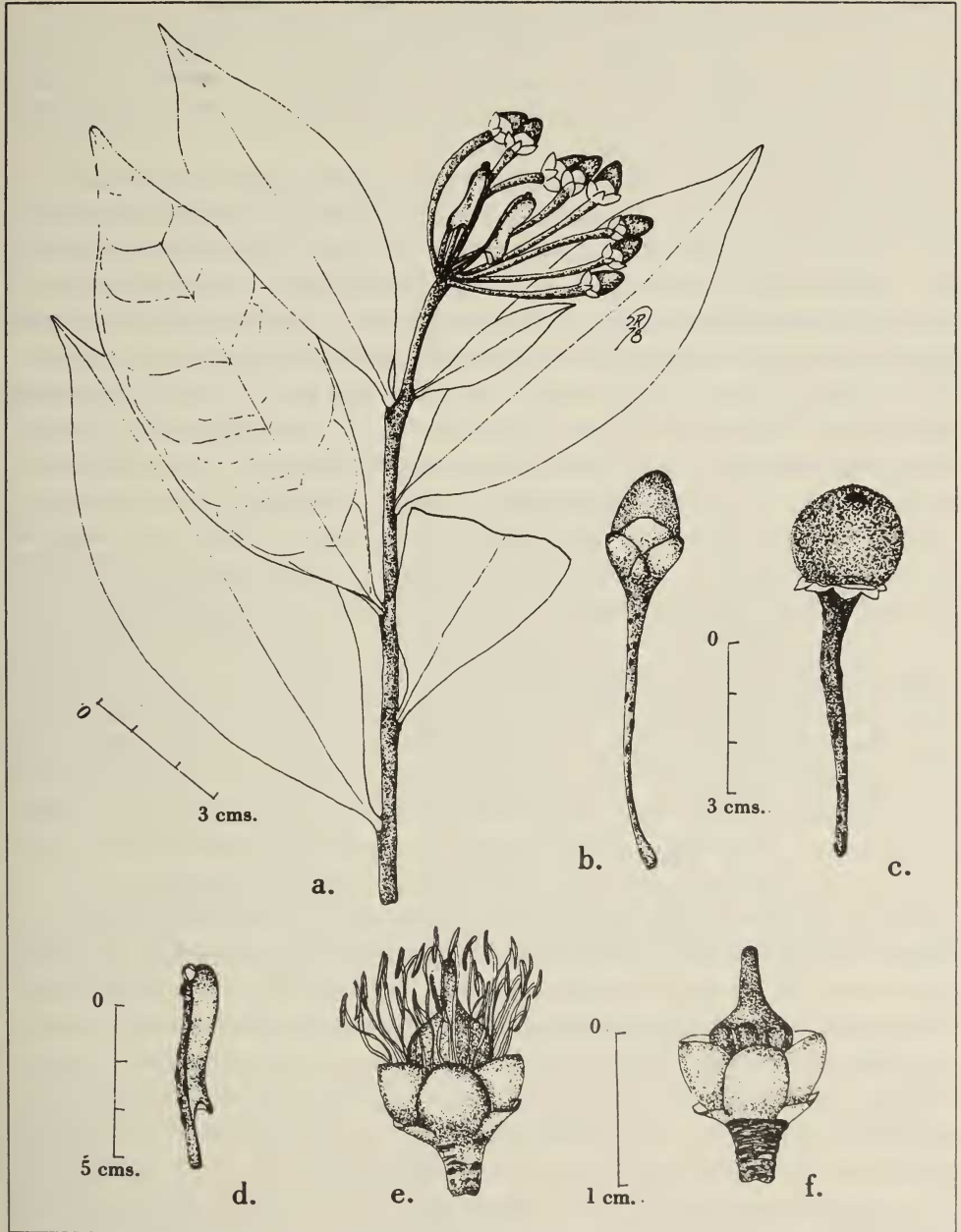


Fig. 1. *Marcgravia brittoniana* Alain. a. flowering branch; b. fertile flower, with calyptra; c. fruit; d. nectary; note the abortive flower at apex; e. open flower, without the petals; f. style and ovary. Drawing by Sofia Robles (1978) using specimens from JBSD Herbarium: A. H. Liogier 20395, A. & P. Liogier 22613, A. & P. Liogier 24549, A. & P. Liogier 27543.

Puerto Rico for over 30 years; this species is named in his honor.

Due to the extensive range and the different ecological situations, this plant shows a great variation both in the vegetative and reproductive characters; I am here giving a complete description including the extremes in measurements and in other characters throughout the range:

Scandent on trees or rocks; sterile branches creeping, appressed to the substrate and attached by adventitious roots; leaves small, membranous, distichous, sessile, very variable in shape and size, at first oblong, 1 cm long, 0.5 cm broad, rounded at apex, cordate at base, the margin laxly crenate and with black glands, paler beneath and with scattered sclereids, the nerves often present, 4-5 pairs; these leaves become larger as the stems climb higher, becoming oblong-elliptic, up to 4.5 cm long, 3.5 cm broad, at first rounded at apex, the upper ones becoming acute, gradually resembling adult leaves; fertile branches erect or pendulous, the stems striate with scattered elliptic sulcate lenticels and numerous minute pellucid glands; leaf blades coriaceous, varying from elliptic to lanceolate or narrowly lanceolate or rarely ovate, 7-15 cm long, 2-4.5 cm broad, usually long-acuminate at apex, rarely merely cuspidate sometimes obliquely so at apex, acute to rounded at base, the midnerve slightly impressed above, prominent beneath, the lateral nerves usually obsolete, in some of the specimens 5-12 primary nerves on each side, prominulous on both faces, secondary nerves rarely visible, parallel to the primary, curved upwards near the margin, the margin straight or slightly undulate, with dark glands scattered, 2-5 mm apart, the upper surface with scattered whitish sclereids; the lower surface with scattered whitish sclereids and numerous minute pellucid more or less impressed glands, these sometimes more conspicuous in some specimens, the hypophyllous glands (pits) usually absent, when present 1 to several on each side in a row, ad 2-3 mm (-1 cm) from the midnerve. Inflorescences cymose-umbelliform, up to 15-flowered, usually 6-8-flowered, the rachis short, 0.5-1 cm long, nectaries (sterile bracts) with pedicels 0.4-1.0 cm long, with whitish sclereids; nectaries 2-3, cylindrical in lower half, clavate in widened upper half, 2-2.5 cm long, 4 mm broad at base, 6 mm broad distally, often with large lenticels, and punctiform whitish sclereids, obliquely crowned by a sterile flower 2-3 mm long; the mouth slightly widened, truncate or with a deltoid acute lobe 1.5 mm long; fertile flowers erect on pedicels, pedicels slender, 4-5.5 cm long, striate, usually with numerous brown lenticels slightly enlarged toward the apex; bracteoles appressed to the calyx, suborbicular, 3 mm long, 3mm broad, glabrous, with minute pellucid glands; sepals 4, broadly suborbicular, the outer 5 mm long, 6 mm broad, the inner 6 mm long, 8 mm wide, all rounded at apex, with minute glands on the surface; calyptra conical to narrow-conical, greenish to cream-colored, 1-2 cm long, 0.7-1 cm wide, with whitish sclereids and scattered minute glands, obtuse at apex; stamens in one verticil, 25-30,

the filaments flattened, pulverulent, 0.7-1 cm long; anthers linear, slightly falcate, 3 mm long, pulverulent; ovary globose, crowned by the style about 1 mm high, the stigma 6-10-lobed; fruit a globose capsule 1.5-2 cm in diameter, red opening irregularly, the surface rough, often with lenticels 0.5-1 mm long; seeds numerous, minute, red or black, linear, reticulate, about 0.7 mm long, 0.4 mm broad.

Vernacular names; CUBA: bejuco palmar, bejuco codicia; HAITI: bois de couilles, bois pétard; DOMINICAN REPUBLIC: bejuco pega-palma, pega-pollo; PUERTO RICO: bejuco de lira, bejuco de palma, pega-palma.

This plant grows in humid forests from sea level to about 1,000 m elevation, in Cuba, Hispaniola, Puerto Rico and Tortola. It has been confused with *Marcgravia trinitatis* C. Presl; the following table gives the main differences between both species:

	<i>M. trinitatis</i>	<i>M. brittoniana</i>
leaves	10-11 x 2.3-2.6 cm	6-15 x 2-5 cm
leaf-base	frequently unequal	symmetric
leaf-surface below	glandless	minute glands
hypophyllous glands	2 per side	absent or 1-few
midnerve	obscure to sulcate	sulcate above
nectaries	2-3, 2.5-2.7 cm long	3-4, up to 2 cm long
nectary pedicels	5 mm long	up to 1 cm long
nectary lip	small, emarginate	triangular, acute
flower pedicel	4-5 cm long	5-5.5 cm long
fruit	up to 1 cm in diam.	up to 2 cm diam.

Agustin Stahl in his "Estudios sobre la Flora de Puerto Rico" II: 129. 1884 has this species under *M. umbellata* L. The main differences between these two species are as follows:

	<i>M. umbellata</i>	<i>M. brittoniana</i>
leaf surfaces	no sclereids, no glands	sclereids and glands
nectaries	4-5	2-3
fertile flowers	23-30	< 15
flowering pedicels	< 3.5 cm long	4.5-5 cm long
flowers on pedicels	at right angle	erect on pedicel
calyptra	< 1.2 cm long, rounded	1-2 cm long, obtuse
stamens	14-18	25-30
fruits	1-1.5 cm diam.	< 2 cm diam.

It would be useless to try to name all the specimens examined in the process of describing *Marcgravia brittoniana*. I shall cite only a few voucher specimens for each island.

CUBA: Oriente (probably Monteverde), Dec 1859, *C. Wright 54* (G); Baracoa: El Yunque, March, 1903, *Underwood & Earle 562* (NY); Trinidad Mts., near Guanabana, 260 m alt., Feb 28-Mar 1, 1910, *N. L. Britton, E. G. Britton, E. G. Britton 5011* (NY, US); Oriente; Piedra Gorda, 150 m alt., Jan 13, 1910, *J. A. Shafer 3532* (NY, US); Trinidad Mts.: Río Negro, 450 m alt., Mar 6-7, 1910, *N. L. Britton, P. Wilson 5214* (NY); Oriente: Bayate, Oct 7, 1914, *Ekman 3051* (S, NY); Prov. Santa Clara, San Blas, La Sierra, alt. 600-800 ft., Mar 16, 1929 *Jack 7087* (NY, US); Prov. Oriente: Cayo Rey, Jimbambay, Feb 9, 1946, *Bro. Clemente 4855* (NY).

HAITI: Borgne to Petit Borgne, alt. 100 ft., Aug 17, 1903, *George V. Nash 564* (NY); Limbé to Marmelade, Jul 30, 1905, *G. Nash & N. Taylor 1217* (NY); Prov. Artibonite: Mirebalais, Oct 27, 1924, *E. L. Ekman 2285* (S, NY, US); Massif du Nord: Anse à Foleur, Jun 7, 1985, *T. Zanoni, M. Mejía & R. García 34872* (JBSD, NY).

DOMINICAN REPUBLIC: Barahona, Jan 1911, *Pater Fuertes 587* (NY, US); Samaná; Río San Juan, El Valle, Apr. 13, 1965, *Prof. Marcano & J. J. Jiménez 5006* (NY); Samaná Peninsula: Los Cacaos, alt 250 m, Mar 15, 1969, *A. H. Liogier 14424* (NY); Bonao: Jayaco, alt 200 m, Oct. 13 1973, *A. H. Liogier 20395* (JBSD, NY); Villa Mella: Sierra Prieta, alt 150-200 m, Oct 24, 1975, *A. & P. Liogier 24070* (JBSD, NY); Piedra Blanca: Villa Maimón, alt 150 m, Dec 1, 1980, *M. Mejía & T. Zanoni 9601* (JBSD, NY); Prov. Samaná: Las Terrenas, alt 600, Nov. 3, 1981, *T. Zanoni & Mejía 17723* (JBSD, NY); Prov. El Seibo: El Valle, alt 200 m, Jul 1, 1982, *T. Zanoni, M. Mejía & J. Pimentel 21255* (JBSD, NY); Prov. Espaillat: La Cumbre, alt 800 m, Feb 17, 1987, *T. Zanoni, J. Pimentel & R. García 38218* (JBSD, NY).

PUERTO RICO; Adjuntas, May 27, 1886, *P. Sintenis 4461* (NY); Adjuntas: Alto de Bandera, Mar. 14, 1913, *N. L. Britton & J. A. Shafer 2028* (NY); Sierra de Naguabo: Loma de la Mina, alt. 360-945 m, Jul. 19, 1914, *J. A. Shafer 3241* (NY, US); Adjuntas: Monte Cerrote, 900-1050 m alt, Mar 15, 1915, *N. L. Britton & S. Brown 5413* (NY); Naguabo, Apr. 19, 1916, *J. A. Stevenson 5249* (NY); Luquillo Mts.: Sabana, alt. 200m, Jan 23, 1979, *A. H. Liogier, P. Liogier, L. F. Martorell 28166* (UPR, NY); Luquillo Mts.: Los Mameyes, alt. 600 m, Jan 23, 1979, *A. H. Liogier, P. Liogier, L. F. Martorell 28120* (UPR, NY); Luquillo Mts. El Verde, Nov. 21, 1981, *B. Hansen & al. 9267* (NY); Luquillo Mts., Rd. 988, Km. 0.5, Mar 1, 1982,

J. A. Santiago-Blay, s.n. (NY); Utuado: Río Abajo Forest, Jan 30, 1985, *P. Acevedo* 581 (NY); Maricao State Forest, alt. 750-825 m, Apr 3, 1985, *J. L. Luteyn & M. Lebrón-Luteyn* 11543 (NY); Caribbean National Forest: Arroyo Sonadora, 500 m alt., 24 Jul 1986, *B. M. Boom* 6728 (NY); Naguabo: Río Cubuy to Río Icacos, Feb 8, 1986, *C. M. Taylor* 6733 (NY); Guavate Forest, alt. 500m, May 18, 1989, *A. & P. Liogier, L. F. Martorell* 36757 (UPR, NY); Maricao, Rte. 105, Km. 14.9, alt. 950 m, Dec 29, 1990, *P. Acevedo & R. Siaca* 3736 (NY); Maricao: Monte del Estado: alt. 700 m, Apr 27, 1991, *G. Caminero & R. García* 254 (NY); Maricao Afuera, alt. 875 m, Nov 13, 1993, *M. Nee* 44205 (NY).

VIRGIN ISLANDS: TORTOLA, in forest, Sage Mountain, alt 530m, Feb 18-20 1913, *J. A. Shafer* 1153 (US).

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Literature Cited

- Bedell, H. G. 1989. Marcgraviaceae in R. A. Howard, Flora of the Lesser Antilles, Vol. 5: 300-304.
- Britton, N. L. & P. Wilson. 1924. Marcgraviaceae in Scient. Surv. P. Rico & V. Isl. 5: 579.
- Hermano Leon & Hermano Alain. 1953. Marcgraviaceae, in Flora de Cuba, vol. III: 298-299.
- Liogier, A.H. & L.F. Martorell. 1982. Marcgraviaceae in Flora of Puerto Rico and Adjacent Islands: a Systematic Synopsis, page 109.
- Liogier, A. H. 1983. Marcgraviaceae in la Flora de la Española, vol. II: 279-282.
- _____. 1994. Marcgraviaceae in Descriptive Flora of Puerto Rico and Adjacent Islands, vol. 3: 217-219.
- Martorell, L. F., A. H. Liogier, R. O. Woodbury. 1981. Marcgraviaceae in Catálogo de los Nombres Vulgares y Científicos de las Plantas de Puerto Rico, page 60.
- Stahl, Agustin 1884. Marcgraviaceae in Estudios sobre la Flora de Puerto Rico II: 129.
- Urban, Ignatius. 1986. Marcgraviaceae, in Additamenta ad cognitionem florum Indiae Occidentalis, in Engler's Bot. Jahrb. XXI: 202-208.
- _____. 1910. Marcgraviaceae in Symb. Ant. 4: 409.
- _____. 1920. Marcgraviaceae in Symb. Ant. 8: 435-436.